

Amendments to the Specification:

Please replace the paragraph beginning at page 2, line 23 with the following amended paragraph:

In certain embodiments, the treatment solution comprises less than about 0.05 weight percent of an antistatic agent or more desirably less than about 0.005 weight percent by weight of an antistatic agent. Most desirably, the treatment solution includes no antistatic agent and the method further comprises contacting the substrate with a second solution that may include an antistatic agent. For example, in certain embodiments, the method includes contacting one side of the treated substrate with a second treatment that includes an antistatic agent. The antistatic agent may be an organic phosphate ester, for example a ~~ZELEC-ZELEC~~[®] organic phosphate ester antistatic agent or a QUADRASTAT[®] antistatic agent. In certain embodiments, the treatment solution comprises less than about 0.20 weight percent of a monovalent salt or a mixture of monovalent salts. In certain embodiments, the treatment solution includes less than about 0.10 weight percent of a monovalent salt or a mixture of monovalent salts. In certain embodiments, the treatment solution includes less than about 0.05 weight percent of a monovalent salt or a mixture of monovalent salts. In certain embodiments, the treatment solution includes less than about 2.0 weight percent of an ionic fluoropolymer or a mixture of ionic fluoropolymers, more desirably, less than about 1.0 weight percent of an ionic fluoropolymer or a mixture of ionic fluoropolymers, most desirably, between about 0.1 and about 1 weight percent of an ionic fluoropolymer or a mixture of ionic fluoropolymers. The method may further include drying the treated substrate wherein the dried substrate includes less than about 0.5 weight percent fluorine, more desirably, less than about 0.25 weight percent fluorine, and even more desirably, less than about 0.15 weight percent fluorine as determined through elemental analysis based on the weight of treated fabric. The treatment solution may be an aqueous treatment solution and may further include an alcohol, for example an alkyl alcohol such as octanol. In certain desirable embodiments, the treatment solution includes less than about 0.2 weight percent of a monovalent salt or a mixture of monovalent salts where the monovalent salts including, but not limited to, sodium chloride, sodium nitrate, sodium carbonate, lithium chloride, lithium nitrate, lithium carbonate, potassium chloride,

potassium nitrate, potassium carbonate and mixtures thereof. Suggested ionic fluoropolymers include, but are not limited to fluoroalkyl acrylate homopolymers, fluoroalkyl acrylate copolymers, fluorinated siloxanes, fluorinated silicones, fluorinated urethanes, and mixtures thereof. Desirably, the treatment solutions of the present invention do not require a non-ionic, permanent wetting agent such as an ethoxylated fatty alcohol or polyoxyethylene. Moreover, treatment solutions of the present invention do not require a silicon containing compound, such as a silyl quarternary amine.

Please replace the paragraph beginning at page 7, line 16 with the following amended paragraph:

The test is modified to include a screen support of standard synthetic fiber window screen material. The test head of a ~~Textest-Textest~~® FX-300 Hydrostatic Head Tester, available from Schmid Corporation, having offices in Spartanburg, South Carolina was filled with purified water. The purified water was maintained at a temperature between 65 °F and 85 °F (between about 18.3 °C and 29.4 °C), which was within the range of normal ambient conditions (about 73 °F (about 23 °C) and about 50% relative humidity) at which this test was conducted. An 8 inch by 8 inch (about 20.3 cm by 20.3 cm) square sample of the test material was placed such that the test head reservoir was covered completely. The sample was subjected to a standardized water pressure, increased at a constant rate until leakage was observed on the outer surface of the sample material. Hydrostatic pressure resistance was measured at the first sign of leakage in three separate areas of the sample. This test was repeated for forty specimens of each sample material. The hydrostatic pressure resistance results for each specimen were averaged and recorded in millibars. Again, a higher value indicates greater resistance to water penetration and is desirable for barrier applications.

Please replace the paragraph beginning at page 9, line 5 with the following amended paragraph.

Grab Tensile test: The grab tensile test is a measure of breaking strength and elongation or strain of a fabric when subjected to unidirectional stress. This test is known in the art and conforms to the specifications of Method 5100 of the Federal Test Methods Standard 191A. The results are expressed in pounds or grams to break and percent stretch before breakage. Higher numbers indicate a stronger, more stretchable fabric. The term "load" means the maximum load or force, expressed in units of weight, required to break or rupture the specimen in a tensile test. The term "total energy" means the total energy under a load versus elongation curve as expressed in weight-length units. The term "elongation" means the increase in length of a specimen during a tensile test. The grab tensile test uses two clamps, each having two jaws with each jaw having a facing in contact with the sample. The clamps hold the material in the same plane, usually vertically, separated by 3 inches (76 mm) and move apart at a specified rate of extension. Values for grab tensile strength and grab elongation are obtained using a sample size of 4 inches (102 mm) by 6 inches (152 mm), with a jaw facing size of 1 inch (25 mm) by 1 inch, and a constant rate of extension of 300 mm/min. The sample is wider than the clamp jaws to give results representative of effective strength of fibers in the clamped width combined with additional strength contributed by adjacent fibers in the fabric. The specimen is clamped in, for example, a Sintech 2 tester, available from the Sintech Corporation, 1001 Sheldon Drive, Cary, North Carolina 27513, an ~~Instren~~-Instron® Model TM, available from the Instron Corporation, 2500 Washington Street, Canton, Massachusetts 02021, or a Thwing-Albert Model INTELLECT II available from the Thwing-Albert Instrument Co., 10960 Dutton Road, Philadelphia, Pennsylvania 19154. This closely simulates fabric stress conditions in actual use. Results are reported as an average of three specimens and may be performed with the specimen in the cross direction (CD) or the machine direction (MD).

Please replace the paragraph beginning at page 15, line 25 with the following amended paragraph:

The present invention provides an improved method of topically treating nonwoven fabrics with a repellent chemistry that improves alcohol repellency of the fabric while minimizing any negative effect on the water barrier of the fabric. In one exemplary embodiment, the method of treating nonwoven fabrics includes treating a nonwoven fabric with a solution or a suspension that includes an ionic fluoropolymer, a monovalent salt and no antistatic agent or essentially no antistatic agent. It is believed that inclusion of antistatic agents negatively affect the water repellency of the fabric. Desirably, the amount of antistatic agent in the treatment solution is less than 0.05 weight percent, more desirably, less than 0.005 weight percent and most desirably the treatment solution includes no or essentially no antistatic agent. Antistatic agents have been observed to destabilize ionic fluoropolymer suspensions in the treatment bath solution or suspension. Destabilization of the treatment bath is undesirable and causes coagulation and filter plugging during the treatment process. Ionic fluoropolymers include both cationically and anionically charged fluoropolymers and solutions and suspensions of such fluoropolymers. One suggested ionic fluoropolymer was obtained under the trade designation UNIDYNE® TG-KC01. UNIDYNE® TG-KC01 is a cationic fluoropolymer suspension that was supplied by Daikin America, Inc. of Orangeberg, New York an affiliate of Daikin Industries, Ltd of Japan. Other suggested ionic fluoropolymers include, but are not limited to, commercially available charged fluoropolymer solutions that can be obtained from Daikin America, Inc. such as UNIDYNE® TG-470, UNIDYNE® TG-571 and UNIDYNE® TG-573. These fluoropolymer solutions are marketed as fabric and carpet protectants. UNIDYNE® TG-470 is an emulsion of about 30 weight percent of a weakly cationic fluoroalkyl acrylate copolymer, about 62 weight percent water and 8 weight percent of tripropylene glycol. Yet another commercially available charged fluoropolymer solution includes, but are not limited to, ~~REPEARL~~ REPEARL® F-23 fluorochemical finish from Mitsubishi International Corporation of New York. ~~REPEARL~~ REPEARL® F-23 fluorochemical finish is characterized as a weakly cationic fluoropolymer and is a 30 weight percent emulsion of a fluoroacrylate copolymer in 20 weight percent dipropylene glycol and 50 weight percent

water. Suggested ionic fluoropolymer concentrations in the fluoropolymer treatment bath include less than about 2.0 weight percent, less than about 1.0 percent and desirably from about 0.1 to about 1.0 weight percent ionic fluoropolymer or a combination of ionic fluoropolymers.

Please replace the paragraph beginning at page 17, line 15 with the following amended paragraph:

Antistatic agents are reagents that prevent or greatly reduce electrical charges that may be produced on textile materials and are also referred to as antistats. Antistatic agents include organic phosphate esters such as ~~ZELEC~~ ZELEC® KC, an alkyl phosphate ester from Stepan Chemical that may include mono- and disubstituted potassium n-butyl phosphate and ~~QUADRASTAT~~ QUADRASTAT® PIBK, mono- and di- substituted potassium isobutyl phosphate from Manufacturers Chemical of Cleveland, Tennessee.

Please replace the paragraph beginning at page 21, line 16 with the following amended paragraph:

Comparative Example B was a 1.5 osy SMS laminate treated in a bath that included an ionic fluoropolymer and an anionic antistatic agent. The aqueous treatment bath for Comparative Example B consisted of water in which was dissolved, or at least suspended, 0.69 weight percent of a cationic fluoropolymer suspension from Daikin America, Inc. identified as UNIDYNE® TG-KC01 and 0.30 weight percent of ~~QUADRASTAT~~ QUADRASTAT® PIBK anionic antistatic agent obtained from Manufacturers Chemical of Cleveland, Tennessee and 0.25 weight percent of octanol (a short chain alcohol that was used as a wetting agent) obtained from Aldrich Chemical. The alcohol repellency of Comparative Example B was measured at 90 percent IPA. The water barrier property of Comparative Example B was measured at a hydrostatic head of 46.3 ± 3.1 mBar, which corresponds to a 45 percent drop in hydrostatic head compared to the untreated material. The fluorine loading on the dry SMS laminate of Comparative Example B was measured at 0.15 weight percent by Galbraith Laboratories of Knoxville, Tennessee.